

What Is Claimed Is

1. An amplifier apparatus, which is switched from a non-readout state to a readout state based on a control signal, for reading out a signal containing a servo signal by signal  
5 readout means, amplifying the signal by an amplifier, and outputting said amplified signal, wherein  
said amplifier apparatus comprises filtering means for allowing a high frequency part of a signal to pass through thereby filtering said signal, said filter means having a first  
10 cutoff frequency during a first prescribed time period after said readout state is initiated, a second cutoff frequency that is lower than said first cutoff frequency during a second prescribed time period after said first prescribed time period has passed, and that is a third cutoff frequency being lower  
15 than said second cutoff frequency after said second prescribed time period has passed.
2. The amplifier apparatus of Claim 1, wherein  
said second prescribed time period is shorter than a readout  
20 time for said servo signal contained in said signal.
3. The amplifier apparatus of Claim 1 or Claim 2, wherein  
said filtering means for allowing said high frequency part of said signal to pass through is a high pass filter, and said  
25 high pass filter is placed between a first amplifier and a second amplifier, which are for amplifying said signal.
4. An amplifier apparatus, which is switched from a non-readout state to a readout state based on a control signal,  
30 for reading out a signal containing a servo signal by signal readout means, amplifying said signal by an amplifier, and

outputting said amplified signal, wherein

an amplifier apparatus comprises:

variable filtering means with a plurality of cutoff frequencies,

5 a first amplifier, and

a second amplifier; wherein

said output signal from said first amplifier passes through said variable filtering means and is amplified by said second amplifier.

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5. The amplifier apparatus of Claim 4 comprising switching means for controlling said amplified signal output, and said switching means being placed on an output side of said second amplifier.

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6. The amplifier apparatus of Claim 4, wherein said variable filtering means has a first cutoff frequency, a second cutoff frequency, and a third cutoff frequency.

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7. The amplifier apparatus of Claim 5, wherein said variable filtering means has a first cutoff frequency, a second cutoff frequency, and a third cutoff frequency.

8. The amplifier apparatus of Claim 7, wherein

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after said non-readout state is switched to said readout state, said variable filtering means has said first cutoff frequency during a first prescribed time period;

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said switching means is turned on, and said variable filtering means has said second cutoff frequency during a second prescribed time period after said first prescribed time period has passed; and

said variable filtering means has a third cutoff frequency after said second prescribed time period has passed, wherein

5       said first cutoff frequency is higher than said second cutoff frequency and said second cutoff frequency is higher than said third cutoff frequency.

9.   A magnetic recording and reproducing apparatus comprising an amplifier apparatus, which is switched from a recording state to a readout state based on a control signal, for reading  
10   out a signal containing a servo signal by signal readout means, amplifying said signal by an amplifier, and outputting said amplified signal, wherein:

      said amplifier apparatus comprises filtering means for  
15   allowing a high frequency part of a signal to pass through thereby filtering said signal, said filtering means having a first cutoff frequency during a prescribed time period after said readout state is initiated, a second cutoff frequency that is lower than said first cutoff frequency during a second  
20   prescribed time period after said first prescribed time has passed, and a third cutoff frequency that is lower than said second cutoff frequency after said second prescribed time period has passed.

25   10.   The magnetic recording and reproducing apparatus comprising the amplifier apparatus of Claim 9, wherein said second prescribed time period is shorter than a readout time for said servo signal, which is contained in said signals.

30   11.   The magnetic recording and reproducing apparatus comprising the amplifier apparatus of Claim 9 or Claim 10,

wherein said filtering means for allowing a high frequency part of a signal to pass through is a high pass filter, and said high pass filter is placed between a first amplifier and a second amplifier, which amplify said signal.

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12. A magnetic recording and reproducing apparatus comprising an amplifier apparatus, which is switched from a non-readout state to a readout state based on a control signal, for reading out a signal containing a servo signal by signal  
10 readout means, amplifying said signal by an amplifier, and outputting said amplified signal, wherein

said magnetic recording and reproducing apparatus comprising an amplifier apparatus comprises variable filtering means with a plurality of cutoff frequencies, a first  
15 amplifier, and a second amplifier; wherein

an output signal from said first amplifier pass through said variable filtering means and is amplified by said second amplifier.

20 13. The magnetic recording and reproducing apparatus comprising the amplifier apparatus of Claim 12, wherein switching means for controlling an amplified signal output is placed on an output side of said second amplifier.

25 14. The magnetic recording and reproducing apparatus comprising the amplifier apparatus of Claim 12, wherein said variable filtering means have a first cutoff frequency, a second cutoff frequency, and a third cutoff frequency.

30 15. The magnetic recording and reproducing apparatus comprising the amplifier apparatus of Claim 13, wherein

said variable filtering means has a first cutoff frequency, a second cutoff frequency, and a third cutoff frequency.

16. The magnetic recording and reproducing apparatus  
5 comprising the amplifier apparatus of Claim 15, wherein  
after said non-readout state is switched to said readout  
state, said variable filtering means has said first cutoff  
frequency during a first prescribed time period; after said  
first prescribed time period has passed, said switching means  
10 is turned on, and said variable filtering means has said second  
cutoff frequency during a second prescribed time period; and  
said variable filtering means has a third cutoff frequency  
after said second prescribed time period; wherein  
said first cutoff frequency is higher than said second  
15 cutoff frequency, and said second cutoff frequency is higher  
than said third cutoff frequency.